Teachers' participation in professional development

Professional development for current teachers includes both seminars offered by schools or school districts and courses affiliated with institutions of higher education. The extent to which teachers pursue professional development while continuing to teach may indicate either the commitment of the teaching profession to improve teaching practice or salary structures that reward participation in professional development.

- In school year 1993–94, 50 percent or more of fultime public school teachers participated in professional development on topics including uses of educational technology for instruction, methods of teaching in their subject field, student assessment, and cooperative learning in the classroom.
- Full-time public school teachers were more likely to participate in activities on all types of professional development topics than were full-time private school teachers. Full-time public elementary school teachers were more likely to participate in activities on four of the five types of professional development topics than were their secondary school counterparts.
- In school year 1993–94, 48 percent of full-time public school teachers received released time from

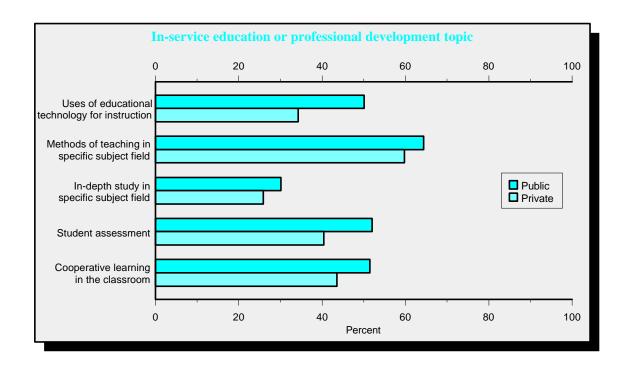
- teaching, and 41 percent received scheduled time for professional development. Twenty-two percent received none of the types of support listed.
- Full-time public school teachers were more likely to receive professional growth credits and released and scheduled time from teaching than were their private school counterparts. However, private school teachers were more likely to receive tuition and/or fees than were public school teachers.
- In recent years, teacher induction programs appeared to be more prevalent. For example, public elementary and secondary teachers with less than 4 years of teaching experience were more likely to have participated in a formal teacher induction program in their first year of teaching than were teachers with 4 or more years of experience (see supplemental table 40-1).

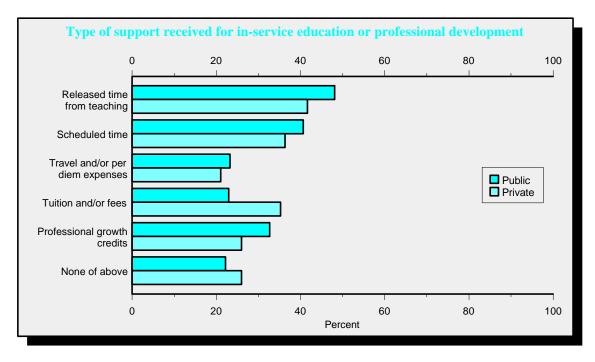
Percentage of full-time teachers who participated in professional development during the 1993–94 school year, by topic, type of support received, and control and level of school

Professional development topic		Public			Private	
and type of support received	Total Elementary		Secondary	Total	Elementary	Secondary
In-service education or professional development	topic					
Uses of educational technology for instruction	50.1	49.7	50.7	34.3	32.8	38.5
Methods of teaching in specific subject field	64.4	69.7	55.0	59.8	63.1	50.8
In-depth study in specific field	30.1	31.6	27.5	25.9	24.7	29.2
Student assessment	52.0	55.4	45.8	40.4	42.5	34.7
Cooperative learning in the classroom	51.5	52.7	49.2	43.6	45.5	38.5
Type of support received during the 1993–94 school	ol year fo	r in-service e	ducation or p	rofessional devel	opment	
Released time from teaching	48.1	50.7	43.5	41.7	42.6	39.2
Scheduled time	40.7	43.6	35.4	36.3	37.1	34.3
Travel and/or per diem expenses	23.3	21.2	26.9	21.1	19.8	24.6
Tuition and/or fees	23.0	24.3	20.7	35.3	36.0	33.3
Professional growth credits	32.7	34.8	28.9	26.0	27.7	21.3
None of the above	22.2	19.4	27.1	26.0	25.1	28.4

NOTE: Excludes a small number of teachers whose schools did not respond to the questionnaire.

Percentage of full-time teachers who participated in professional development during the 1993–94 school year, by control of school





SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Teacher Questionnaire).

Percentage of full-time teachers who participated in professional development during the 1993-94 school year, by topic, type of support received, and control and level of school

Professional development topic		Public			Private	_
and type of support received	Total	Elementary	Secondary	Total	Elementary	Secondary
In-service education or professional development	topic					
Uses of educational technology for instruction	50.1	49.7	50.7	34.3	32.8	38.5
Methods of teaching in specific subject field	64.4	69.7	55.0	59.8	63.1	50.8
In-depth study in specific field	30.1	31.6	27.5	25.9	24.7	29.2
Student assessment	52.0	55.4	45.8	40.4	42.5	34.7
Cooperative learning in the classroom	51.5	52.7	49.2	43.6	45.5	38.5
Type of support received during the 1993–94 school	ol year for	in-service ed	ucation or profess	ional develo	oment	
Released time from teaching	48.1	50.7	43.5	41.7	42.6	39.2
Scheduled time	40.7	43.6	35.4	36.3	37.1	34.3
Travel and/or per diem expenses	23.3	21.2	26.9	21.1	19.8	24.6
Tuition and/or fees	23.0	24.3	20.7	35.3	36.0	33.3
Professional growth credits	32.7	34.8	28.9	26.0	27.7	21.3
None of the above	22.2	19.4	27.1	26.0	25.1	28.4

NOTE: Excludes a small number of teachers whose schools did not respond to the questionnaire.

Table 40-1 Percentage of teachers who participated in a formal teacher induction or a master or mentor program, by years of teaching experience and control and level of school: 1994

	Participated	l in a formal teach	ner induction	
	program	during first year o	f teaching	Master or
Control and level of school	1 year	2-3 years	4 years or more	mentor program
Public	59.9	54.8	23.3	11.3
Elementary	59.4	54.5	23.8	11.4
Secondary	60.7	55.3	22.5	11.3
Private	30.2	33.8	24.2	10.1
Elementary	26.8	31.7	23.5	8.9
Secondary	42.7	39.5	26.0	13.7

Table 40-2 Percentage of teachers who participated in professional development activities during the 1993–94 school year, by topic, type of support and activity, outcomes, and level, control and urbanicity of school

	_	Elementa	ry teachers			Seconda	ry teachers	
			Urban	Rural/			Urban	Rural/
Topic, type of support and activity, and	Ŧ	Central	fringe/	small	Ŧ	Central	fringe/	small
outcomes of professional development	Total	City	large town	town	Total ublic	city	large town	town
In-service education or professional development top	ic				abiic			
Uses of educational technology for instruction	49.7	51.6	51.7	46.7	50.7	50.8	51.8	49.9
Methods of teaching in specific subject field	69.7	73.4	70.8	65.9	55.0	59.1	55.3	52.2
In-depth study in specific field	31.6	36.6	31.1	28.1	27.5	30.8	27.5	25.4
Student assessment	55.4	56.8	58.2	52.2	45.8	46.7	45.7	45.3
Cooperative learning in the classroom	52.7	56.6	50.7	51.4	49.2	52.1	49.0	47.5
Type of support received during 1993–94 school year f	or in-servic	e educat	ion or profess	sional de	velopment			
Released time from teaching	50.7	50.4	52.8	49.3	43.5	42.2	43.6	44.2
Scheduled time (built-in time)	43.6	47.1	42.5	41.9	35.4	37.9	34.1	35.0
Travel and/or per diem expenses	21.2	15.3	18.2	28.1	26.9	21.5	23.5	32.7
Tuition and/or fees	24.3	20.9	24.2	26.9	20.7	17.0	20.3	23.2
Professional growth credits	34.8	35.5	34.1	34.8	28.9	30.7	27.5	29.0
None of above	19.4	20.1	18.4	19.7	27.1	27.0	28.3	26.3
Type of professional development activity								
School district sponsored workshop or in-service	89.6	87.7	91.0	89.9	84.9	82.8	84.7	86.3
School sponsored workshop or in-service	83.7	86.4	83.2	82.1	79.1	81.5	78.7	78.0
University extension or adult education course	25.1	25.3	25.1	24.9	25.5	23.9	26.5	25.7
College course in specific subject field	26.1	26.5	25.1	26.6	24.3	22.6	23.8	25.7
Professional association sponsored workshop	50.5	49.2	52.0	50.3	51.9	51.3	53.1	51.5
Those who agreed with the following statements about							33	00
Provided information that was new to me	85.4	85.3	86.4	84.8	83.0	81.2	83.4	83.7
Changed my views on teaching	44.0	45.4	41.4	44.9	38.6	38.7	38.8	38.4
Caused me to change my teaching practices	68.0	66.6	69.3	68.0	59.5	57.6	61.5	59.1
Caused me to seek further information or training	64.6	64.5	66.0	63.4	59.1	59.5	59.6	58.3
Were generally a waste of my time	9.1	9.7	8.0	9.6	13.8	15.9	13.1	13.2
note generally a maste of my limb		,,,	0.0			,		.0.2
In-service education or professional development top	ic			PII	vate			
Uses of educational technology for instruction	32.8	33.9	33.1	29.4	38.5	37.0	39.7	40.0
Methods of teaching in specific subject field	63.1	66.7	60.6	60.1	50.8	52.1	50.5	48.0
In-depth study in specific field	24.7	24.6	25.3	23.6	29.2	28.8	29.7	29.3
Student assessment	42.5	46.8	40.3	37.2	34.7	36.2		32.4
Cooperative learning in the classroom	45.5	49.7	44.2	38.5	38.5	40.8	37.0	35.3
Type of support received during 1993–94 school year f	or in-servic	re educat	ion or profess	sional de	velonment			
Released time from teaching	42.6	41.4	42.6	45.4	39.2	38.2	38.9	42.7
Scheduled time (built-in time)	37.1	39.4	35.7	34.7	34.3	36.2	34.1	29.3
Travel and/or per diem expenses	19.8	18.2	17.2	29.6	24.6	21.8	22.7	36.4
Tuition and/or fees	36.0	32.3	38.5	39.3	33.3	28.6	35.9	40.7
Professional growth credits	27.7	28.7	25.3	30.6	21.3	21.0	21.9	20.9
None of above	25.1	25.4	25.3	24.0	28.4	30.0	26.8	27.6
	20.1	20.1	20.0	21.0	20.1	00.0	20.0	27.0
Type of professional development activity School district sponsored workshop or in-service	78.9	78.7	78.2	80.9	68.9	71.0	67.0	65.3
·							67.9	
School sponsored workshop or in-service	78.0	77.9	79.0	75.8	78.4	80.6	78.8	71.4
University extension or adult education course	24.8	26.6	21.3	28.0	23.6	24.7	22.8	22.4
College course in specific subject field	23.7	25.3	20.9	26.1	24.1	25.0	22.9	23.9
Professional association sponsored workshop	46.8	47.7	45.5	47.6	48.2	49.0	48.2	45.8
Those who agreed with the following statements about	ut their in-se	ervice edu	cation or pro	ofessiona	l developme	ent*		
Provided information that was new to me	85.2	84.8	84.9	86.8	87.1	84.4	88.4	92.0
Changed my views on teaching	41.9	41.9	40.0	46.4	43.7	40.3	46.5	47.3
Caused me to change my teaching practices	65.0	63.9	64.1	70.0	62.8	61.0	65.8	61.6
Caused me to seek further information or training	61.2	60.6	60.6	64.1	62.5	60.6	64.5	63.5
Were generally a waste of my time	6.8	7.2	6.8	5.8	9.4	11.3	8.6	5.6

 $^{^{\}star}$ Includes those who responded "strongly agree" or "agree."

Table 40-3 Percentage of public teachers who participated in professional development activities during the 1993–94 school year, by topic, type of support and activity, outcomes, level of school, and percentage of students eligible for free or reduced-price lunch

Topic, type of support and activity, and	-	Elementa	ary teache	ers	(Secondar	y teache	S
outcomes of professional development	0–5	6–20	21–40	41–100	0–5	6–20	21–40	41–100
In-service education or professional development to	pic							
Uses of educational technology for instruction	55.6	53.6	50.2	46.7	55.0	51.0	48.2	50.1
Methods of teaching in specific subject field	70.3	68.8	69.0	70.7	54.3	53.2	55.1	58.2
In-depth study in specific field	33.2	31.7	28.8	32.8	26.6	26.7	27.6	28.9
Student assessment	62.7	55.0	54.5	55.2	45.5	42.9	47.9	48.2
Cooperative learning in the classroom	49.2	51.3	50.3	55.4	50.1	46.9	49.2	52.2
Type of support received during 1993-94 school year	for in-ser	vice edu	ıcation oı	r professional	developmer	nt		
Released time from teaching	56.2	54.9	49.0	48.7	43.0	45.0	42.6	42.2
Scheduled time (built-in time)	42.2	40.4	42.8	45.7	34.6	33.8	36.0	38.2
Travel and/or per diem expenses	19.5	22.2	23.6	20.0	26.7	26.7	27.5	26.9
Tuition and/or fees	28.5	26.4	25.9	21.6	20.4	21.6	21.1	19.1
Professional growth credits	37.0	33.7	36.4	34.4	28.7	28.0	28.6	30.3
None of above	16.0	19.2	19.4	20.0	26.8	27.1	27.7	27.2
Type of professional development activity								
School district sponsored workshop or in-service	90.4	91.0	90.5	88.5	83.9	85.2	85.5	84.3
School sponsored workshop or in-service	79.4	83.8	84.2	84.6	77.6	77.9	80.5	81.5
University extension or adult education course	25.8	26.4	25.2	24.4	27.1	25.6	25.1	24.4
College course in specific subject field	25.7	26.3	25.0	26.4	25.0	23.7	24.1	24.1
Professional association sponsored workshop	53.4	55.5	49.9	48.2	55.0	51.7	51.1	50.5
Those who agreed with the following statements abo	out their ir	n-service	educatio	on or professio	nal develop	ment*		
Provided information that was new to me	87.8	86.1	86.8	84.0	84.0	83.2	82.8	82.2
Changed my views on teaching	44.7	44.3	42.2	44.5	40.5	38.7	37.4	38.5
Caused me to change my teaching practices	73.4	67.2	68.0	67.2	60.7	60.6	58.6	57.8
Caused me to seek further information or training	67.2	66.1	63.5	63.9	58.4	59.1	59.9	58.8
Were generally a waste of my time	8.9	9.1	7.8	9.9	12.6	13.6	14.2	14.6

^{*} Includes those who responded "strongly agree" or "agree."

NOTE: Excludes a small number of teachers whose schools did not respond to the questionnaire.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Teacher Questionnaire).

Table 40-4 Percentage of teachers who participated in professional development activities during the 1993–94 school year, by topic, type of support and activity, outcomes, level and control of school, and school size

	Elen	nentary te	eachers		S	econdar	y teachers	
Topic, type of support and activity, and outcomes of professional development	Less than 150 1	50–499 5	00–749	750 or more	Less than 150	150–499	500-749	750 or more
					olic			
In-service education or professional development	topic				5.11.0			
Uses of educational technology for instruction	42.4	48.0	50.5	52.2	50.9	50.3	48.9	51.3
Methods of teaching in specific subject field	57.4	68.9	70.2	71.4	50.0	52.7	54.9	55.8
In-depth study in specific field	26.8	31.0	31.8	32.6	26.0	25.6	26.6	28.2
Student assessment	47.8	56.3	55.0	55.2	44.8	45.9	48.0	45.3
Cooperative learning in the classroom	43.2	51.6	52.9	55.4	42.4	45.9	50.0	50.1
Type of support received during 1993-94 school ye	ear for in-serv	ice educ	ation or	profession	nal developi	ment		
Released time from teaching	51.0	51.5	50.9	49.0	50.1	47.9	44.4	41.8
Scheduled time (built-in time)	38.0	43.7	44.1	43.3	34.0	34.3	35.7	35.7
Travel and/or per diem expenses	27.8	24.2	19.1	18.6	37.2	34.2	28.7	24.1
Tuition and/or fees	30.4	26.8	22.8	21.5	24.0	23.8	21.4	19.6
Professional growth credits	31.2	35.1	34.7	34.6	34.8	29.9	26.9	28.9
None of above	21.1	18.2	19.5	21.3	22.5	25.7	26.6	27.9
Type of professional development activity								
School district sponsored workshop or in-service	89.0	90.3	90.6	86.8	87.0	86.3	85.9	84.1
School sponsored workshop or in-service	79.5	81.9	84.4	86.2	81.8	78.4	79.0	79.2
University extension or adult education course	31.7	25.2	25.6	23.6	28.9	26.6	25.9	24.9
College course in specific subject field	34.8	27.1	25.0	25.0	30.0	25.8	24.0	23.7
Professional association sponsored workshop	53.5	51.9	50.5	47.9	47.6	55.1	52.1	51.3
Those who agreed with the following statements a	about their in-	service e	educatio	n or profe	ssional deve	elopment	*	
Provided information that was new to me	84.4	85.3	86.9	83.5	82.9	83.2	83.2	82.9
Changed my views on teaching	40.9	44.1	45.2	42.1	33.6	40.4	40.3	38.0
Caused me to change my teaching practices	64.5	68.0	69.7	65.6	55.2	60.0	60.8	59.2
Caused me to seek further information or training	•	65.2	64.6	63.4	57.5	60.5	58.8	58.8
Were generally a waste of my time	5.3	9.4	8.6	9.8	13.4	13.0	13.5	14.2
In-service education or professional development	tonic			Priv	ate			
Uses of educational technology for instruction	. topic 26.6	34.4	36.6	41.9	26.2	39.4	42.2	39.9
Methods of teaching in specific subject field	55.4	65.0	68.0	78.9	46.6	51.2	51.3	51.8
In-depth study in specific field	20.3	25.7	27.1	36.0	21.9	30.7	31.3	28.7
Student assessment	33.8	44.4	51.4	52.7	25.0	37.2	35.2	35.2
Cooperative learning in the classroom	35.1	48.1	52.8	61.7	33.6	39.1	37.8	40.3
Type of support received during 1993–94 school ye	ear for in-serv	ice educ	ation or	profession	nal developi	ment		
Released time from teaching	38.6	43.7	46.6	41.3	35.7	41.0	42.4	36.0
Scheduled time (built-in time)	36.7	37.1	37.8	36.1	34.1	33.2	31.7	37.7
Travel and/or per diem expenses	25.2	18.6	12.8	18.9	25.0	25.1	25.5	23.0
Tuition and/or fees	34.1	36.5	36.1	42.0	22.1	37.1	34.3	31.8
Professional growth credits	23.9	28.4	34.9	24.1	15.3	19.4	24.3	24.4
None of above	28.0	24.2	22.9	27.3	39.4	28.6	23.7	26.9
Type of professional development activity								
School district sponsored workshop or in-service	71.2	81.0	82.5	92.6	66.0	68.5	70.1	69.9
School sponsored workshop or in-service	65.6	81.7	85.5	85.7	69.1	77.1	81.4	82.1
University extension or adult education course	23.2	25.9	20.8	25.3	24.7	24.3	21.5	23.7
College course in specific subject field	22.7	24.1	27.2	11.8	18.0	24.7	25.6	24.7
Professional association sponsored workshop	42.1	47.6	56.4	43.4	33.5	46.1	54.7	52.7
Those who agreed with the following statements a	about their in-	-service e	ducatio	n or profe	ssional deve	elopment	*	
Provided information that was new to me	83.7	86.3	84.7	72.7	93.9	88.5	85.8	83.5
Changed my views on teaching	40.3	43.4	41.9	21.0	51.2	40.6	35.9	50.9
Caused me to change my teaching practices	66.9	64.9	64.1	55.6	69.7	60.0	60.3	66.2
Caused me to seek further information or training	61.4	61.9	59.5	49.2	72.2	61.3	64.9	58.8
Were generally a waste of my time	4.6	7.5	5.4	11.7	7.6	10.7	7.9	9.3

^{*} Includes those who responded "strongly agree" or "agree."

Table 40-5 Percentage of public school teachers who participated in professional development activities during the 1993–94 school year, by topic, type of support and activity, outcomes, and percentage of students eligible for free or reduced-priced lunch within urbanicity

Topic, type of support and activity, and		Centra	al city		Urba	n fringe	/large to	wn	R	ural/sm	all town	
outcomes of professional development	0–5	6–20	21–40	41–100	0–5	6–20	21–40	41–100	0–5	6–20	21–40	41–100
In-service education or professional development top	ic											
Uses of educational technology for instruction	61.3	59.6	49.7	48.2	55.4	52.1	51.1	48.2	52.1	48.8	48.5	46.2
Methods of teaching in specific subject field	64.3	65.7	69.2	70.5	62.3	64.3	66.5	68.7	60.3	55.3	59.8	65.6
In-depth study in specific field	36.6	33.0	32.7	35.9	27.8	31.1	29.3	30.4	30.7	25.5	25.6	28.8
Student assessment	58.2	49.4	51.7	54.7	54.3	51.5	57.4	54.5	50.4	46.3	49.3	52.5
Cooperative learning in the classroom	54.6	51.2	53.3	57.4	47.9	49.8	47.8	54.1	51.1	47.3	49.3	52.3
Type of support received during 1993-94 school year f	or in-servi	ce educ	cation or	professiona	l developmer	nt						
Released time from teaching	43.2	52.5	46.4	46.9	51.1	50.9	48.4	47.2	48.5	47.8	46.0	48.0
Scheduled time (built-in time)	40.4	42.0	42.1	46.0	37.4	37.8	40.4	42.6	39.1	33.9	39.3	43.2
Travel and/or per diem expenses	20.7	25.1	18.3	14.0	22.2	20.0	21.2	17.6	26.8	28.7	30.5	31.0
Tuition and/or fees	19.8	20.8	20.3	18.5	25.0	23.6	23.6	18.6	24.9	25.9	26.3	25.0
Professional growth credits	40.3	35.0	35.7	31.9	30.1	30.1	34.0	34.0	34.5	29.5	32.1	35.1
None of above	22.4	21.9	21.6	22.7	22.6	22.4	22.2	21.7	19.0	24.5	23.1	20.0
Type of professional development activity												
School district sponsored workshop or in-service	83.9	87.3	88.2	85.3	87.1	89.3	90.2	87.9	88.3	87.3	88.1	89.9
School sponsored workshop or in-service	83.9	84.6	85.1	84.8	78.1	80.7	83.8	84.3	76.7	79.1	81.2	82.9
University extension or adult education course	21.9	24.7	25.5	25.1	27.0	26.5	26.2	22.9	27.5	26.2	24.4	24.4
College course in specific subject field	22.7	23.7	23.1	26.5	24.4	24.1	25.9	24.0	28.7	26.7	24.8	26.2
Professional association sponsored workshop	56.6	53.3	53.0	47.0	53.0	53.9	51.2	49.9	55.6	53.4	48.6	49.7
Those who agreed with the following statements about	ıt their in-s	ervice e	educatio	n or professi	onal develop	ment*						
Provided information that was new to me	84.1	84.5	84.7	83.7	85.8	85.5	85.2	84.7	87.1	83.9	85.8	83.1
Changed my views on teaching	41.6	41.2	41.7	44.9	41.7	41.1	36.4	41.8	45.0	42.4	42.2	42.5
Caused me to change my teaching practices	69.2	61.7	63.3	64.3	66.2	65.6	65.7	68.8	67.6	63.7	64.8	65.0
Caused me to seek further information or training	65.9	63.2	63.3	62.8	62.9	64.3	62.5	64.5	61.0	60.9	61.5	62.2
Were generally a waste of my time	13.7	12.6	10.2	11.3	10.2	10.3	9.2	9.3	10.5	11.5	10.5	11.1

^{*} Includes those who responded "strongly agree" or "agree."

NOTE: Excludes a small number of teachers whose schools did not respond to the questionnaire.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Teacher Questionnaire).

Table 40-6 Percentage of all teachers who participated in professional development activities, by professional development topic and state: 1994

	technology	teaching in specific	In-depth study in	Student	learning in the
State	technology for instruction	subject field	specific field	assessment	classroom
All states	48.8	64.0	29.8	51.1	50.8
Alabama	43.2	71.2	35.2	52.1	54.1
Alaska	63.9	63.0	35.6	50.9	43.2
Arizona	45.8	56.0	26.4	53.8	43.5
Arkansas	33.3	68.4	27.8	47.5	49.1
California	52.6	75.8	39.8	66.8	51.3
Colorado	53.1	58.4	30.5	55.7	40.2
Connecticut	46.4	70.7	37.6	58.9	52.7
Delaware	45.6	66.1	30.4	59.5	48.6
District of Columbia	49.9	66.0	36.4	48.5	66.4
Florida	62.2	66.9	30.6	45.5	53.3
Georgia	45.2	59.6	24.6	37.7	48.6
Hawaii	54.8	69.8	39.9	57.1	62.2
ldaho	42.2	61.0	28.8	40.7	45.7
Illinois	39.0	53.1	21.6	53.5	42.8
Indiana	49.7	55.7	22.7	37.7	46.3
lowa	55.5	57.9	25.8	54.0	42.8
Kansas	58.2	63.3	27.5	54.2	46.3
Kentucky	75.1	75.0	37.0	87.3	72.1
Louisiana	39.9	67.1	29.1	47.6	50.6
Maine	39.3	59.5	27.4	50.7	51.7
Maryland	46.4	65.2	23.1	54.4	58.5
Massachusetts	42.1	60.9	29.6	43.8	54.5
Michigan	42.3	62.3	25.6	51.4	47.5
Minnesota	53.2	62.9	32.4	49.7	44.2
Mississippi	45.1	65.9	30.8	66.3	65.7
Missouri	45.2	57.1	24.0	42.9	44.9
Montana	54.7	59.8	28.3	43.1	45.9
Nebraska	56.7	55.2	24.6	46.4	42.7
Nevada	30.0	62.7	31.4	40.4	44.6
	49.3	71.4	43.9	53.0	55.4
New Hampshire	49.3 49.2	64.4	43.9 26.7	47.6	49.4
New Jersey New Mexico		55.2			52.5
New York	43.0 37.0	55.2 57.6	24.3 25.0	43.9 43.0	52.5 44.3
	55.6	69.8			55.3
North Carolina North Dakota	54.9	56.3	32.2 27.0	57.6 33.8	40.5
Ohio	40.9	61.9	29.0	44.3	40.5 47.8
Oklahoma	46.4	65.0	27.7	54.1	60.4
	45.6	63.2	26.9	55.3	39.0
Oregon					
Pennsylvania	42.1	57.8	24.0	48.7	50.2
Rhode Island	37.5	53.8	21.9	46.5	48.5
South Carolina South Dakota	40.5	61.5	24.6	45.4	53.6
	55.3	52.7	22.8	41.7	49.0
Tennessee	55.8	66.5	24.5	47.9	49.5
Texas	60.2	74.9	40.0	56.8	66.2
Utah	59.4	64.7	33.8	43.1	50.9
Vermont	49.8	58.0	33.0	53.7	36.3
Virginia	49.4	61.0	27.8	46.6	52.5
Washington	62.3	63.7	34.9	49.3	45.2
West Virginia	49.2	67.1	29.4	54.3	57.2
Wisconsin	48.7	58.2 53.3	28.6 30.0	44.4	37.6 43.7

Table S40 Standard errors for the text table in *Indicator 40*

Professional development topic		Public			Private	
and type of support received	Total	Elementary	Secondary	Total	Elementary	Secondary
In-service education or professional development	topic					
Uses of educational technology for instruction	0.5	0.6	0.5	0.8	0.9	1.2
Methods of teaching in specific subject field	0.4	0.6	0.4	0.6	8.0	1.4
In-depth study in specific field	0.3	0.5	0.3	0.4	0.5	1.1
Student assessment	0.4	0.6	0.5	0.7	1.0	1.3
Cooperative learning in the classroom	0.4	0.6	0.5	1.0	1.0	1.5
Type of support received during the 1993–94 scho	ol year for	in-service ed	ucation or profess	ional developme	ent	
Released time from teaching	0.4	0.7	0.4	0.9	1.1	1.0
Scheduled time	0.4	0.6	0.4	0.6	0.9	1.0
Travel and/or per diem expenses	0.4	0.6	0.3	0.6	0.8	1.1
Tuition and/or fees	0.3	0.5	0.3	0.8	0.9	1.4
Professional growth credits	0.4	0.5	0.3	0.6	0.7	0.9
None of the above	0.3	0.5	0.3	0.7	0.9	1.2

Table S40-1 Standard errors for table 40-1

	Participated	in a formal teac	her induction	
	program	of teaching	Master or	
Control and level of school	1 year	2-3 years	4 years or more	mentor program
Public	2.1	1.6	0.4	0.3
Elementary	2.8	2.2	0.5	0.4
Secondary	1.8	1.4	0.4	0.3
Private	2.6	1.6	0.6	0.5
Elementary	3.0	1.7	0.7	0.6
Secondary	4.2	3.2	1.1	0.9

Table S40-2 Standard errors for table 40-2

	Elementary teac			chers		Secondary teachers		
•			Urban	Rural/			Urban	Rural/
Topic, type of support and activity, and	C	entral	fringe/	small	C	entral	fringe/	small
outcomes of professional development	Total	city	large town	town	Total	city	large town	town
				Publi	ic			
In-service education or professional development topic								
Uses of educational technology for instruction	0.6	1.2	1.4	1.0	0.5	1.1	0.8	0.7
Methods of teaching in specific subject field	0.6	1.1	1.0	0.9	0.4	1.0	0.6	0.6
In-depth study in specific field	0.5	1.1	1.0	8.0	0.3	0.7	0.6	0.5
Student assessment	0.6	1.1	1.1	0.9	0.5	0.8	0.6	0.7
Cooperative learning in the classroom	0.6	1.2	1.2	0.9	0.5	1.1	0.9	0.7
Type of support received during 1993-94 school year for in	n-service e	educat	tion or profes	sional dev	velopmen	t		
Released time from teaching	0.7	1.2	1.3	1.1	0.4	0.9	0.7	0.5
Scheduled time (built-in time)	0.6	0.9	1.3	0.9	0.4	0.8	0.8	0.6
Travel and/or per diem expenses	0.6	0.9	1.1	0.9	0.3	0.7	0.8	0.5
Tuition and/or fees	0.5	1.0	1.1	0.7	0.3	0.6	0.6	0.6
Professional growth credits	0.5	1.1	1.2	0.8	0.3	0.8	0.7	0.6
None of above	0.5	0.8	0.9	0.8	0.3	0.7	0.6	0.6
Type of professional development activity								
School district sponsored workshop or in-service	0.4	0.7	0.7	0.5	0.3	0.7	0.5	0.4
School sponsored workshop or in-service	0.5	0.8	0.9	0.7	0.4	0.8	0.7	0.4
University extension or adult education course	0.5	0.9	1.0	0.8	0.4	0.9	0.6	0.5
College course in specific subject field	0.5	0.8	1.0	0.8	0.3	0.8	0.5	0.5
Professional association sponsored workshop	0.6	1.1	1.2	0.9	0.4	0.9	0.7	0.5
·							0.7	0.0
Those who agreed with the following statements about the							0.7	0.4
Provided information that was new to me	0.4	0.7	0.7	0.7	0.3	0.8	0.6	0.4
Changed my views on teaching	0.6	1.1	1.2	0.9	0.5	0.9	0.7	0.6
Caused me to change my teaching practices	0.5	1.1	1.2	8.0	0.4	1.0	0.7	0.6
Caused me to seek further information or training	0.6	1.1	1.1	0.8	0.4	0.9	0.8	0.7
Were generally a waste of my time	0.4	0.6	0.7	0.6	0.3	8.0	0.5	0.4
In-service education or professional development topic								
Uses of educational technology for instruction	0.9	1.3	1.5	1.7	1.2	1.6	2.1	2.7
Methods of teaching in specific subject field	8.0	1.4	1.2	1.7	1.4	2.0	2.1	2.6
In-depth study in specific field	0.5	1.0	1.0	1.7	1.1	1.8	1.5	2.7
Student assessment	1.0	1.3	1.7	2.1	1.3	1.5	2.2	3.5
Cooperative learning in the classroom	1.0	1.4	1.6	2.3	1.5	2.1	2.0	3.0
Type of support received during 1993-94 school year for in	n-service e	educat	tion or profes	sional dev	velopmen	t		
Released time from teaching	1.1	1.8	1.6	2.3	1.0	1.5	1.4	3.1
Scheduled time (built-in time)	0.9	1.2	1.4	1.7	1.0	1.8	1.8	2.4
Travel and/or per diem expenses	8.0	1.3	1.2	2.2	1.1	1.3	1.7	4.6
Tuition and/or fees	0.9	1.4	1.6	2.2	1.4	1.6	1.9	4.7
Professional growth credits	0.7	1.2	1.5	2.0	0.9	1.4	1.8	3.2
None of above	0.9	1.3	1.5	2.0	1.2	1.4	2.1	3.5
Type of professional development activity								
School district sponsored workshop or in-service	1.0	1.1	1.4	1.8	1.4	1.2	2.0	4.6
School sponsored workshop or in-service	0.8	1.2	1.4	2.0	1.0	1.4	1.6	2.8
University extension or adult education course	0.9	1.3	1.1	2.2	1.0	1.3	1.7	2.7
College course in specific subject field	0.8	1.4	0.9	1.8	1.2	1.6	1.5	2.2
Professional association sponsored workshop	1.0	1.7	1.9	1.8	1.2	1.9	1.9	4.5
Those who agreed with the following statements about th	eir in-servi	ice edi	ication or pro	ofessional	developr	nent		
Provided information that was new to me	0.7	1.1	0.9	1.7	0.9	1.2	1.4	1.8
Changed my views on teaching	0.8	1.2	1.5	2.0	1.5	1.6	2.3	3.3
Caused me to change my teaching practices	1.0	1.6	1.5	2.1	1.6	2.0	2.3	3.2
Caused me to seek further information or training	0.6	1.3	1.3	1.9	1.3	1.9	2.2	3.7
Were generally a waste of my time	0.4	0.6	0.7	0.9	8.0	1.2	1.1	1.8

Table S40-3 Standard errors for table 40-3

Topic, type of support and activity, and	E	lementa	ry teacher	S	S	econda	ry teache	ers
outcomes of professional development	0–5	6–20	21–40	41–100	0–5	6–20	21–40	41–100
In-service education or professional development top	ic							
Uses of educational technology for instruction	2.5	1.3	1.5	0.8	1.2	0.8	1.2	1.0
Methods of teaching in specific subject field	2.0	1.5	1.1	0.9	1.0	0.7	1.1	0.8
In-depth study in specific field	2.1	1.3	1.0	0.8	8.0	0.5	0.9	0.7
Student assessment	2.2	1.5	1.3	0.8	1.0	0.8	1.1	0.9
Cooperative learning in the classroom	2.8	1.1	1.3	0.8	1.4	8.0	1.0	0.9
Type of support received during 1993–94 school year t	or in-servi	ce educa	ation or pro	ofessional dev	velopmen	ıt		
Released time from teaching	2.0	1.7	1.2	0.9	0.9	0.8	0.7	0.8
Scheduled time (built-in time)	2.3	1.4	1.2	0.8	1.0	0.7	0.7	0.9
Travel and/or per diem expenses	2.1	1.1	1.2	0.7	1.0	0.6	0.8	0.8
Tuition and/or fees	2.1	1.0	1.2	0.8	8.0	0.6	0.7	0.6
Professional growth credits	2.3	1.3	1.4	0.8	1.3	0.6	0.8	0.8
None of above	1.6	1.0	1.0	0.7	1.0	0.6	0.6	0.7
Type of professional development activity								
School district sponsored workshop or in-service	1.4	8.0	0.7	0.6	0.9	0.5	0.6	0.7
School sponsored workshop or in-service	2.0	1.0	1.0	0.6	1.0	0.6	0.7	0.8
University extension or adult education course	1.9	1.1	1.1	0.6	0.9	0.6	0.7	0.8
College course in specific subject field	1.7	1.0	1.0	0.7	8.0	0.6	0.8	0.8
Professional association sponsored workshop	2.1	1.7	1.0	0.8	1.0	0.7	0.9	0.8
Those who agreed with the following statements about	ut their in-s	ervice ed	ducation o	r professional	develop	ment		
Provided information that was new to me	1.2	1.0	0.7	0.6	0.7	0.5	0.8	0.7
Changed my views on teaching	2.4	1.4	1.0	0.8	1.2	0.7	0.9	0.8
Caused me to change my teaching practices	1.6	1.5	1.2	0.9	1.1	8.0	0.8	1.0
Caused me to seek further information or training	1.8	1.2	1.2	0.9	1.0	0.7	1.1	0.9
Were generally a waste of my time	1.1	0.9	0.7	0.6	8.0	0.6	0.7	0.7

Table S40-4 Standard errors for table 40-4

	Elementary teachers				Secondary teachers				
Topic, type of support and activity, and	Less than	150 400	E00 740	750 or	Less than	150 400	E00 740	750 or	
outcomes of professional development	150	150-499	500-749	more	150	150-499	500-749	more	
In-service education or professional development	tonic			Pu	blic				
Uses of educational technology for instruction	2.6	0.8	1.1	2.0	2.3	0.9	1.0	0.6	
Methods of teaching in specific subject field	2.8	0.8	1.0	1.5	1.9	0.8	1.1	0.6	
In-depth study in specific field	2.3	0.8	0.8	1.0	1.6	0.7	0.9	0.4	
Student assessment	2.9	0.9	1.0	1.4	1.9	1.1	1.2	0.6	
Cooperative learning in the classroom	2.8	0.9	1.1	1.3	1.8	0.9	1.2	0.7	
Type of support received during 1993–94 school ye	ar for in-ser	vice edu	cation or p	rofessiona	al developme	ent			
Released time from teaching	2.6	0.9	1.1	1.6	1.5	0.7	1.1	0.5	
Scheduled time (built-in time)	2.3	1.0	1.0	1.4	1.4	0.8	0.9	0.6	
Travel and/or per diem expenses	2.0	0.8	0.9	1.4	1.6	0.8	0.9	0.6	
Tuition and/or fees	2.3	0.7	0.8	1.4	1.6	0.7	1.0	0.4	
Professional growth credits	2.1	0.9	1.0	1.6	1.8	0.7	0.9	0.5	
None of above	1.8	0.7	0.8	1.2	1.1	0.7	0.9	0.5	
Type of professional development activity									
School district sponsored workshop or in-service	1.8	0.5	0.7	1.0	1.4	0.8	0.8	0.4	
School sponsored workshop or in-service	2.5	0.7	1.0	1.1	1.2	0.9	0.8	0.5	
University extension or adult education course	2.5	0.7	1.1	1.2	1.6	0.8	1.0	0.5	
College course in specific subject field	1.9	0.7	0.9	1.2	1.7	0.7	0.9	0.3	
Professional association sponsored workshop	2.0	1.0	1.0	1.2	1.8	0.8	0.9	0.6	
Those who agreed with the following statements a	bout their ir	n-service (education	or profess	ional develo _l	pment			
Provided information that was new to me	2.8	0.6	0.7	0.8	1.6	0.7	0.8	0.4	
Changed my views on teaching	2.5	0.8	1.1	1.5	1.8	8.0	1.0	0.6	
Caused me to change my teaching practices	2.8	1.0	0.9	1.3	1.7	8.0	0.8	0.6	
Caused me to seek further information or training	2.5	0.8	1.2	1.4	1.9	0.9	1.0	0.5	
Were generally a waste of my time	0.9	0.6	0.5	8.0	1.7	0.6	0.7	0.4	
In-service education or professional development	topic								
Uses of educational technology for instruction	1.6	1.1	3.0	6.9	3.1	2.1	2.2	2.2	
Methods of teaching in specific subject field	1.3	1.2	2.4	4.2	4.8	2.4	2.5	1.7	
In-depth study in specific field	1.3	0.8	1.7	4.8	4.4	1.7	2.4	1.8	
Student assessment	1.7	1.2	3.1	6.6	3.3	1.6	2.8	2.2	
Cooperative learning in the classroom	1.8	1.2	2.8	6.7	3.8	2.3	3.0	2.2	
Type of support received during 1993-94 school ye	ar for in-ser	vice edu	cation or p	rofessiona	al developme	ent			
Released time from teaching	2.0	1.3	2.5	7.3	3.7	1.9	2.4	1.7	
Scheduled time (built-in time)	1.7	1.3	2.2	5.5	4.2	1.6	2.6	1.9	
Travel and/or per diem expenses	1.8	1.1	1.9	5.1	4.0	1.6	3.0	2.6	
Tuition and/or fees	1.7	1.2	2.1	7.1	3.6	2.2	3.0	2.6	
Professional growth credits	1.1	1.2	2.4	6.2	2.7	1.6	2.0	2.5	
None of above	1.8	1.1	1.7	6.4	4.1	1.9	2.1	2.1	
Type of professional development activity									
School district sponsored workshop or in-service	2.4	1.6	2.9	2.0	4.1	1.8	2.0	2.5	
School sponsored workshop or in-service	1.9	1.0	1.5	3.9	4.7	1.6	1.7	1.5	
University extension or adult education course	1.5	1.0	1.8	5.2	3.4	1.8	1.9	2.3	
College course in specific subject field	1.3	1.0	3.0	3.2	2.8	1.9	1.7	1.6	
Professional association sponsored workshop	1.6	1.3	2.7	5.5	4.5	2.0	2.6	2.2	
Those who agreed with the following statements a									
Provided information that was new to me	1.4	0.9	1.9	5.4	1.9	1.4	1.9	1.7	
Changed my views on teaching	1.9	1.0	3.3	4.3	5.6	2.3	2.3	2.3	
Caused me to sook further information or training	1.8	1.0	3.1	5.0	4.6	2.3	2.4	1.8	
Caused me to seek further information or training	2.2	0.9	2.8	4.0	3.6	2.2	3.0	2.3 1.3	
Were generally a waste of my time	0.9	0.5	1.1	4.6	2.2	1.7	1.2	1.3	

Table S40-5 Standard errors for table 40-5

Topic, type of support and activity, and		Central city			Urban fringe/large town 0-5 6-20 21-40 41-100				Rural/small town			
outcomes of professional development	0-5 6-20 21-40 41-100			0-5 6-20 21-40 41-100								
In-service education or professional development topic												
Uses of educational technology for instruction	3.3	2.0	2.1	1.3	2.0	1.4	1.8	2.3	1.9	1.2	1.6	1.2
Methods of teaching in specific subject field	3.1	1.6	1.4	1.1	1.6	1.3	1.8	2.0	1.9	1.2	1.1	0.9
In-depth study in specific field		1.5	1.6	1.3	1.4	1.5	1.5	1.5	2.5	0.9	0.9	0.8
Student assessment	3.1	1.5	1.8	1.2	1.8	1.5	2.0	1.5	2.3	1.1	1.1	1.1
Cooperative learning in the classroom		1.8	1.8	1.2	1.9	1.4	1.8	1.6	2.4	1.1	1.3	1.1
Type of support received during 1993-94 school year	ar for in-	servic	e educ	ation o	r profe	ssional	develo	pment				
Released time from teaching	3.1	2.0	1.6	1.3	1.8	1.4	1.9	2.1	2.3	1.3	1.1	1.2
Scheduled time (built-in time)	2.3	1.7	2.2	1.0	2.0	1.7	1.8	1.6	2.3	1.1	0.9	0.9
Travel and/or per diem expenses		1.8	1.2	1.1	1.8	1.1	1.3	1.2	2.2	8.0	1.3	0.8
Tuition and/or fees	1.6	1.7	1.2	1.2	1.7	1.0	1.4	1.6	2.3	0.9	1.0	0.9
Professional growth credits	4.3	1.5	1.9	1.1	1.6	1.3	1.9	1.9	2.3	1.1	1.4	0.9
None of above	2.0	1.5	1.3	1.0	1.5	0.9	1.4	1.6	1.9	0.8	1.2	8.0
Type of professional development activity												
School district sponsored workshop or in-service	1.7	1.1	1.0	0.9	1.2	0.9	0.9	1.0	1.6	0.7	8.0	0.5
School sponsored workshop or in-service		1.3	1.1	8.0	1.3	1.2	1.6	1.1	2.7	8.0	8.0	8.0
University extension or adult education course		1.2	1.6	0.9	1.4	1.4	1.2	1.2	2.1	1.0	1.0	8.0
College course in specific subject field		1.2	1.3	0.8	1.5	0.9	1.2	1.4	1.8	0.9	8.0	0.9
Professional association sponsored workshop	2.4	1.6	1.5	1.3	1.8	1.5	1.6	1.9	2.1	1.1	1.1	0.9
Those who agreed with the following statement about	out their	in-ser	vice ec	ducatio	n or pro	ofessio	nal dev	/elopme	ent			
Provided information that was new to me	2.5	1.0	1.6	8.0	0.9	0.9	1.1	1.3	1.6	0.9	0.9	0.9
Changed my views on teaching	2.7	1.7	1.5	1.3	1.8	1.3	1.6	1.8	1.9	1.2	1.3	1.0
Caused me to change my teaching practices		1.7	1.7	1.3	1.5	1.6	1.7	1.6	2.0	1.3	1.2	1.0
Caused me to seek further information or training	3.5	1.8	2.0	1.4	1.4	1.1	2.0	1.6	1.4	1.3	1.1	1.0
Were generally a waste of my time	1.9	1.2	1.2	0.8	0.9	0.9	1.0	1.0	1.4	8.0	8.0	0.7

Table S40-6 Standard errors for table 40-6

U	lses of educational	Methods of		Cooperative		
	technology	teaching in your	In-depth study in	Student	learning in the	
State	for instruction	subject field	your subject field	assessment	classroom	
All states	0.4	0.4	0.3	0.3	0.4	
Alabama	1.8	1.5	2.2	2.5	2.4	
Alaska	2.2	1.8	1.5	2.9	2.3	
Arizona	2.3	1.7	1.6	2.0	1.9	
Arkansas	2.2	1.8	1.8	1.9	1.9	
California	2.3	1.6	1.7	1.7	1.9	
Colorado	2.4	1.4	1.7	1.7	2.2	
Connecticut	1.9	1.8	1.3	1.5	1.8	
Delaware	2.8	2.1	2.2	1.7	2.5	
District of Columbia	3.1	3.2	2.3	2.5	3.2	
Florida	1.5	1.7	2.3	2.0	2.4	
Georgia	1.6	1.8	1.2	2.2	2.1	
Hawaii	2.5	2.0	2.7	2.3	2.3	
Idaho	2.3	1.9	1.9	2.0	2.1	
Illinois	1.5	1.3	1.1	1.2	1.5	
Indiana	1.8	2.3	1.3	1.9	2.4	
lowa	2.9	2.2	1.8	2.1	2.4	
Kansas	1.7	1.6	1.3	1.9	1.7	
Kentucky	2.2	1.8	3.0	1.0	2.3	
Louisiana	2.1	1.4	1.6	1.8	1.8	
Maine	1.9	2.3	2.0	2.6	2.1	
Maryland	1.8	1.9	1.8	2.2	1.9	
Massachusetts	1.3	1.2	1.3	1.2	1.2	
Michigan	2.1	2.1	1.8	2.7	1.8	
Minnesota	2.3	2.0	1.8	2.5	2.4	
Mississippi	1.9	2.2	1.5	2.2	2.1	
Missouri	2.3	1.9	1.4	1.8	2.1	
Montana	1.8	1.4	1.3	1.3	1.5	
Nebraska	2.2	1.5	1.5	1.7	1.8	
Nevada	2.4	2.0	2.2	2.4	1.9	
New Hampshire	2.7	2.3	2.8	2.2	2.4	
New Jersey	2.5	2.1	2.1	2.6	2.2	
New Mexico	1.8	1.7	1.7	1.9	2.1	
New York	2.1	2.2	1.6	2.4	2.0	
North Carolina	2.3	1.9	1.9	1.9	1.8	
North Dakota	1.9	1.9	1.6	2.2	1.7	
Ohio	2.0	1.9	1.7	1.5	2.2	
Oklahoma	2.3	1.8	1.7	1.3	2.0	
Oregon	2.1	2.3	1.7	2.5	2.5	
Pennsylvania	2.3	2.0	1.6	2.0	2.4	
Rhode Island	2.2	3.0	1.8	3.0	3.5	
South Carolina	2.8	2.8	2.2	2.4	2.3	
South Dakota	2.7	1.5	1.6	2.2	1.5	
Tennessee	2.4	2.3	1.8	2.0	2.2	
Texas	1.9	1.7	1.7	1.7	1.3	
Utah	2.0	1.3	1.2	1.7	1.3	
Vermont	2.8	2.2	2.0	2.8	2.0	
Virginia	2.4	2.4	2.1	2.2	2.9	
Washington	2.0	1.7	1.8	2.1	2.5	
West Virginia	2.5	2.0	1.9	2.2	2.0	
Wisconsin	2.2	2.3	1.8	2.3	2.3	
Wyoming	1.5	1.5	1.0	1.9	1.8	